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ABSTRACT

The educational priorities of 90 key decisionmakers -- school administrators, teachers, and community members -- from school districts representing three economic levels, were investigated to determine: (1) the types of educational objectives preferred by each group, (2) the agreements within and among the three groups of decisionmakers in these school districts of varying economic levels, and (3) the relationship between the priorities as assigned in a Q-sort and as practiced in the classroom. One hundred behavioral objectives representing the categories low-cognitive, high-cognitive, tool-skill, affective-personal, and affective-interactive were put into a Q-sort. Each person's Q-sort was subjected to an analysis of variance. Comparisons were made within and among groups of decisionmakers for different types of districts, and teachers' Q-sort preferences were correlated with their classroom practices. Two main findings emerged: (1) decisionmakers generally assign high priority to high-cognitive and affective-personal categories regardless of the group or district to which they belong and (2) teachers' classroom practices reflect heavy emphasis on tool-skill objectives rather than the categories of high preference. (Author/DN)

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THE RELATIONSHIP BETWEEN THE ASSIGNMENT OF EDUCATIONAL PRIORITIES AND THEIR PRACTICE

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ABSTRACT

THE RELATIONSHIP BETWEEN THE ASSIGNMENT OF

EDUCATIONAL PRIORITIES AND THEIR PRACTICE

The educational priorities of key decision makers consisting of school administrators, teachers and community members were investigated to determine:

(a) the types of educational objectives preferred by each group;
(b) the agreements within and among the three groups of decision makers in school districts of varying economic levels;
(c) the relationship between the priorities as assigned in a Q-sort and and as practiced in the classroom.

One hundred behavioral objectives representing the following five categories were put into a Q-sort: low-cognitive, high-cognitive, tool-skill, affective-personal and affective-interactive. The Q-sort was administered to ninety decision makers comprised of five administrators, five teachers, five community members in each of six school districts selected by stratified random sampling from three economic levels. Each of the thirty teachers in the total sample was then observed to determine the degree to which he/she practiced in the classroom each of the five categories represented in the Q-sort.

Each of the ninety person's Q-sorts was subjected to an analysis of variance. Comparisons were made within and among groups of decision makers for different types of districts. Also, teachers' Q-sort preferences were correlated with their classroom practices.

Two main findings emerged.

(a) The ninety decision makers generally assign high priority to high-cognitive and affective-personal categories regardless of the group or district to which they belong.
(b) Teachers' classroom practices generally do not reflect the categories of high preference. Instead they reflect a heavy emphasis on tool-skill objectives.

The incongruence between the preferences and practices is attributed in part to the paucity of curricular materials designed to achieve high-cognitive and affective objectives. It is surmized that teachers lack the preparation they need to put into practice the objectives they and other decision makers prefer.

INTRODUCTION

The general problem that was investigated in this study was: would theorized categories of behaviorally stated educational objectives be assigned priority by educational decision-makers in school districts and, if so, what relationships might exist between these priorities and classroom practice? In this study, educational decision-makers were operationally defined as (a) being common branch classroom teachers who were currently teaching the highest grade level within individual school district's elementary school program; (b) elementary school principals, and (c) community leaders as defined by school district's assistant superintendents of instruction. These groups comprised the three district groups of educational decision-makers for the purpose of this study. The following are the specific problems which were derived from the general problem.

1. Do most educational decision-makers have priorities concerning different categories of educational objectives which may be reflected in their assignment of priority to the specific educational objectives? In other words, when an individual educator is asked to sort educational objectives in terms of priority, will certain categories receive higher priority or will the sort be random?

2. Do the three groups of educational decision-makers, namely the administrators, teachers, and community members within a given school district agree in the priorities they assign to the educational objectives?

3. Is there a relationship between the type of school district and the category of educational objectives which receives high priority? For example, do the priorities of districts with predominantly "disadvantaged" groups differ from the priorities of districts with predominantly "affluent" groups?

4. Is there a relationship between the type of school district and the amount of agreement among the three groups within the district? For example, do administrators, teachers and community representatives show more agreement in the affluent district than they do in a "disadvantaged" district?

5. Is there a correspondence between the degree of priority assigned to a category and the extent to which behaviors in that category is observable in the classroom?

6. Is there a relationship between the amount of agreement within a school district and the degree of correlation between assigned priorities and behaviors observable in the classroom? For example, if teachers and administrators in a district show high agreement in the way they assign priorities, will these priorities be reflected in classroom practice more often than if the two groups do not agree in the way they assign priori-

ties? Furthermore, if a lack of agreement is found among the three groups, will the priorities of teachers be the most highly correlated with the behaviors observable in the classes?

In order to study the problems, two measures had to be developed. The Q-technique was chosen to study the priorities of individuals and a classroom observation instrument was constructed to study the degree to which teacher practices in the classroom corresponded to their priorities measured by the Q-technique. The Q-sort consisted of behavioral objectives systematically representing several domains and applicable to all content areas. The observation instrument dealt with the same domains represented in the Q-sort.

The theoretical framework of the domains to be included in the measures was derived, initially, from Bloom and Krothwohl's taxonomies, (1950), (1964). However, the two volumes of The Taxonomy of Educational Objectives did not contain enough operationally defined objectives. An attempt to define objectives operationally by Kaya (1961) resulted in five categories, rather than two and yielded a number of specified behaviors in each category. These categories were:

--Low-cognitive category. This category is concerned with the recall, recognition and retention of facts, theories, concepts and principles.

--High-cognitive category. This category is concerned with the intellectual manipulation and application of information.

--Tool-skill category. This area is concerned with behaviors which have become routinized and habitual through training.

--Affective-personal category. This area is concerned with affective behaviors having to do with the individual and his own personal developement.

--Affective-interactive category. This area is concerned with the child's interaction with others as well as his environment.

Subsequent research conducted by Kaya (1961), (1967), (1969), with behavioral objectives at the elementary school level included the content analysis of published text series, state guides, classroom observations of teachers and pupils, and a field experiment dealing with a further breakdown of the cognitive domain. This research resulted in seven hundred behavioral objectives which represented the five categories given above. Woog (1969) selected twenty objectives in each category to make up the 100-item Q-sort to be used in this study. Some preliminary research was conducted to establish the validity of the instrument prior to the conduct of this study. (For a complete listing of the 100 items in the Q-sort, see Appendix A).

HYPOTHESES

A review of the literature yielded no studies similar to the one reported here. Therefore, there appeared to be no rationale to support

any substantive and directional hypotheses that could be formulated. On the basis of past experience it seemed reasonable to expect that the teachers, principals and community members constituting the sample in the study would have discernible priorities among the categories represented in the Q-sort. Furthermore, based on a study conducted by Brown (1970) there seemed to be little reason to expect a correlation between priorities assigned to categories and practice in the classroom. But, no specific hypotheses were formulated. The objective of the study was to find specific answers to the problems posed in the previous section.

PROCEDURES

Sampling

School Districts: Six public School districts were selected by a stratified random sampling technique from a total of ninety-two centralized public school districts in the Nassau-Suffolk County regions of New York State. Each district was identified in code as being economically "high", "medium" or "low".

The data used to tri-partition the school districts was furnished by the New York State Educational Data System's Chief, Mr. Joseph Forte. Table #55 of the Annual Education Summary Nineteen Sixty-Seven-Sixty-Eight entitled, "Real Property Valuation and Tax Levy by County and District of 1967-68" was used. It was suggested by the bureau that the best single indicator of economic level of a school district was the total assessed valuation of a district divided by the number of students within the district. This procedure was followed and cut-offs for "high","medium" and "low" were established by inspection. "High" districts were those with average assessed valuation per student in excess of $18,000.00. "Medium" districts were those with an average assessed valuation per student of more than $5,000.00 and less than $7,000.00. "Low" districts were those with an average of less than $4,000.00 average assessed valuation per student. The final population included ten "high" districts, fifteen "medium" districts and nineteen "low" districts. Table 1 shows the rank order of average assessed valuation per student per school district and those districts designated "high", "medium" and "low".

From this stratified sample, two school districts from each level were randomly sampled[1]. The result was a sample of school districts consisting of two randomly "high" districts, two randomly sampled "medium" districts and two randomly sampled "low" districts for a total of six school districts.

Administrators

Each assistant superintendent of each participating school district selected five elementary school principals for inclusion in the study. Fortunately, in all but one of the six school districts, there were precisely five elementary school principals. In the case of the sixth school district, five of the nine principals within the district were chosen at random.

Teachers

Elementary school principals within each participating school district were asked to select a teacher or teachers to be included within the teacher sample. The selection process was made within the principal's own school. Principals were instructed to select teachers with the

[1] Robert K. Young and Donald J. Veldman, Introductory Statistics for the Behavioral Sciences, Holt, Rinehart and Winston, Inc., New York, 1965, p. 426.

following criteria in mind:

--Only select those teachers that are presently teaching the highest grade level within your building.

--Only select teachers that you consider to be "good" in the sense that they represent what you consider the district's instructional goals.

The choice to select only "good" teachers was made for two reasons. First, in order to reduce the variability of teacher quality as systematic error. Second, in order to most efficaciously solicit the participation on the part of sample school districts.

Table 1. Average Assessed Valuation per Student of Nassau-Suffolk Centralized School Districts in Dollars with "High", "Medium" and " Low" Designated.

School District Rank	Average Assessed Valuation/Student	School District Rank	Average Assessed Valuation/Student
1	59088	47	7240
2	52160	48	7146
3	41562	49	6889
4	36272	50	6571
5	29949	51	6558
6	27442	52	6554
7	22413	53	6352
8	18876	54	6141
9	18262	55	5881
10	18205	56	5558
11	17640	57	5526
12	17229	58	5409
13	17140	59	5332
14	16891	60	5327
15	16120	61	5226
16	16096	62	5120
17	14967	63	5079
18	14847	64	4939
19	14691	65	4775
20	14635	66	4679
21	14438	67	4670
22	13797	68	4665
23	13259	69	4642
24	12281	70	4562
25	12270	71	4494
26	12173	72	4124
27	11985	73	4037
28	11594	74	3960
29	11436	75	3671
30	11386	76	3670
31	11354	77	3669
32	10872	78	3599
33	10749	79	3595
34	10721	80	3568
35	10446	81	3501
36	10056	82	3454
37	9285	83	3349
38	9204	84	3242
39	9121	85	3214
40	8518	86	3211
41	8430	87	3116
42b	8343	88	3010
43	7821	89	2939
44	7651	90	2726
45	7462	91	2599
46	7400	92	2166

Ranks 1-10 "high"
49-63 "medium"
74-92 "low"

Each school district selected five teachers to be included within the sample. Whenever possible, given that the school district had a minimum of five elementary schools, one teacher per school or per principal was selected.

The result of this sampling technique was a selected sample of thirty teachers from a stratified random sample of six school districts.

Community Members

Each assistant superintendent chose five members of his community for inclusion in the study. All assistant superintendents chose district Parent Teacher Association (PTA) presidents or local school board members. They seemed to feel that no representative sample of the community was possible and that the P.T.A. presidents and the school board members probably constituted the most representative small group of "interested" community members.

The final sample for the study is shown below. This table indicates the type and number of school districts and the groups included in the study.

Table 2 Sample

Economic Index of School Districts	High (2)	Medium (2)	Low (2)	Total
Number of Teachers from Two Districts in Each Economic Level	10	10	10	30
Number of Administrators from two Districts in Each Economic Level	10	10	10	30
Number of Community Members from Two Districts in Each Economic Level	10	10	10	30
Total	30	30	30	90

Measuring Techniques

The Q-technique was used to assess the priorities individuals assigned to different categories of behaviorally stated educational objectives. In addition to this technique, classroom observations of the teachers were conducted to determine the frequency with which the categories of behaviors were observable in the classroom.

The Q-Technique

The Q-technique is based upon a forced choice method which lends itself to statistical analysis of data to determine intra-individual

variance. Briefly, it asks a subject to sort a specified number of items in a prescribed manner, usually a quasi-normal distribution along a value dimension. In this study, individuals were asked to sort one hundred items into eleven piles. These piles ranged from those items they perceived as being the most significant objectives of elementary instruction to those items they perceived as being the least significant objectives of elementary instruction. Twenty items from each of the five categories were pre-selected for a total of one hundred items.

Q-Sort's Reliability

In order to establish the repeat reliability of the one-hundred item Q-sort which was constructed for this study, six teachers and professors were administered the Q-sort twice with a time interval of three weeks between the two administrations. The obtained repeat-reliability coefficients ranged from .82 to .91.

Q-Sort's Validity

After the five categories of behaviorally stated educational objectives were theorized, items were sought which reflected each of those categories. The final 100 items in the Q-sort were selected from a pool of over 700 behaviorally stated objectives which were gathered from the following: a) curricular materials, b) classroom observations, c) literature, d) state and local curricular guides and e) interviews with teachers (Woog, 1969). The selection of items was made to represent a possible universe of items which might exhaust the five categories.

The items were written as what Eisner (1969) describes as "expressive" objectives: "An expressive objective describes an educational encounter; it identifies a situation in which children are to work, a problem with which they are to cope, a task they are to engage in..." [1]

In Jenkins and Deno (1970) "Model of Instructional Objectives", the items in the Q-sort are characterized as "Level C". This level of behaviorally stated objectives includes verbs such as: classifies, defines, produces examples and predicts.

When initial construction of the Q-sort was completed, three professional educators, all of whom were familiar with the five categories, were asked to judge the relavance of each specific item to each of the five categories. Only items which received 100% agreement were included in the final sort.

The following investigations of construct validity were conducted after the sort was constructed in order to obtain further

1 E. Eisner, "Instructional and Expressive Educational Objectives: Their Formulation and Use in Curriculum," AERA Monogram Series on Curriculum Evaluation: Volume 3, Instructional Objectives, Rand, McNally, Chicago, Illinois, 1969, p.15.

evidence of validity:

A group of twenty Master's level students in education were administered an instrument which contained all 100 items that are found in the Q-sort. They were asked to categorize each item given in the five categories. Only those students proficient[1] in the use of behaviorally stated objectives were included in the study.

The data were analyzed by computing per item the percent of students who categorized that item as being from the same category for which the item was constructed. From this analysis a median percent per category over the twenty students was computed. This percent was perceived as the percent of explained variance per category and the square root of that percent as a "construct validity coefficient".[2]

Table 3 presents the median of agreement, the range of agreement among items and the validity coefficient per category:

Table 3

Median Percent of Agreement, Range of Agreement Among Items and Validity Coefficient Per Category.

Category	Low Cognitive	High Cognitive	Tool Skill	Affective Personal	Affective Interactive
Median Percent of Agreement	75	95	85	85	80
Range of Agreement Among Items	10-100	75-100	20-100	20-100	20-100
Validity Coefficient	.87	.97	.92	.92	.89

In a second study, the one-hundred items of the Q-sort were factor analyzed over 101 respondents. These respondents included: 1) twenty secondary teachers, 2) fifty elementary teachers, 3) fifteen community members and 4) sixteen school administrators. The results of the factor analyses indicated three strong factors which seemed to represent the categories of Affective, High-Cognitive and a combined factor of Low-Cognitive Tool Skill, (Kaya and Woog, 1971).

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[1] "Proficient" was operationally defined as receiving a score of equal to or greater than sixteen correct responses out of a possible twenty-three items in a test of mastery of application of behavioral objectives. The test had been administered two weeks previous to the instrument asking the students to respond to the 100 items.

[2] Lee J. Cronbach and Paul E. Meehl, "Construct Validity in Psychological Tests", Psychological Bulletin, Volume 52, No.4, July, 1955, P. 289.

During the 1969-1970 academic year the director of Pilot Elementary Education Program at Hofstra University, Professor Anne Morgenstern requested that the Q-sort be administered to the students in the program as a pre October,1969-post May, 1970 measuring device. It was hypothesized that as a result of the year's experience students would become more "affective-personal" oriented as measured by the Q-sort. This experimental program[1] includes such activities as "Human Relations Seminars" weekly during the program. As a result of this experience, the program director hypothesized that the overall mean in the category of "affective-personal" would be significantly greater at the .05 level for the students at the end of the year as compared to the beginning.

The means of fourteen students for the category of "affective-personal" were analyzed using a correlated t analysis. The results demonstrated, at p less than .05, that there had been a significant positive shift among the students toward the category of "affective-personal". Overall, only two of the fourteen students means had decreased in the "affective-personal" category between October, 1969 and May, 1970 (Woog and Maltin, 1970).

Classroom Observation Technique

The classroom observation instrument[2] was developed to systematically observe and record the frequency of teacher's utterances into one of the five categories of educational objectives. Classroom observers recorded each teacher's discrete verbal utterances and inferred from each utterance which category of pupil behavioral objective might be achieved. Each audible teacher's utterance[3] was transcribed by each observer and then categorized[4]. Those utterances which did not "fit" into one of the categories were identified as being "miscellaneous" and were not transcribed. Selected examples of teacher utterances per category, and an explication of the "miscellaneous" category is as follows:

Low Cognitive Category

"Do you remember what lines of force are?"
"Where are the glacial lakes?"
"Did you ever hear the word before?"
"Who was Harrigan?"

---

[1] Anne Morgenstern,"Highlights of A Pilot Master of Science Program," Hofstra University, Hempstead, New York, 1969, p. 2.

[2] The Observation Instrument appears : as Appendix B

[3] Edward M. Hanley, "Review of Research Involving Applied Behavior in the Classroom," Review of Educational Research, Volume 40,No.5,December, 1970, p. 603.

[4] Kenneth Murray, "The Systematic Observation Movement," Journal of Research and Development in Education, Volume 4, No.1, Fall, 1970,P.3.

High Cognitive Category

"Why might northern animals have heavy coats?"
"What was the main idea of the book?"
"How do you know that is true?"
"What made Harrigan reject him?"

Tool Skill Category

"Find the page number where you found the answer."
"Look up the meaning of "jetty"."
"What is the sum of four and three?"
"Fill in the bar graph."

Affective-Personal Category

"Do it, if you want."
"Anyone want to add something else?"
"Reread it, unless it is boring."
"It's always somebody else's fault."

Affective-Interactive Category

"Sam, would you take care of Andy?"
"Borrow from the next kid and work together."
"Snare your wires."
"How about working together?"

Miscellaneous Category

All utterances that could not be identified as leading to any specific behavior on the part of the pupils and which thus could not be placed in a category of pupil objectives, were classified as miscellaneous. There were several types of miscellaneous utterances. These, together with some examples, are given below:

Pure informational[1] - consists of a teacher's sudden "bursting in" on the children's activities with an order, statement, or question in such a manner as to indicate that her own intent or desire was the only determinant of her timing and point of entry. That is, she evidences no sign (pausing, looking around) of looking for, or of being sensitive to the group's readiness to receive her message. It has a clear element of suddenness as well as an absence of any observable

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[1] Jacob S. Kounin, "Observing and Delineating Techniques of Managing Behavior in Classrooms," Journal of Research and Development in Education, Volume 4,No.1, Fall, 1970. P. 70.

sign of awareness or sensitivity to whether the target audience is in a state of readiness. Examples would be:

"Lunch will be late today."
"Don't forget to write your name on the top."

Rhetorical statements - the teacher does not require or wish a response from the pupils. Here the teacher behaves as if she is seeking information or a behavior from the pupils, but reacts to it herself either by answering her own questions or ignoring it completely. Examples would be:

"What time is it?" (as she looks at own watch).
"Was this work done? Yes, it was, I see."

Chatter[1] - these statements appear when a teacher begins to say something and then leaves it hanging in the air by going off to some other topic of conversation. Following such a statement, the teacher resumes the activity. An example would be:

"Why don't we...?"

Busy talk - these statements appear to convey no information, nor do they require any specific behavior on the part of the students. The only purpose they seem to serve is to let those present know that the teacher is present and awake. Examples would be:

"Uh-huh."
"Is that so?"

Transitional statements - a transition entails terminating one activity and starting another. Examples would be:

"Put away math books."
"Take out your lunch and put it on your desk."

Classroom Observation Instrument's Reliability

Two observers, trained in the category system, conducted two thirty-minute observations in the classroom of thirty teachers. Both observers sat at the rear of the classroom at opposite sides. The beginning and ending of the observation was synchronized by the use of hand signals.

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[1] Jacob S. Kounin, "Observing and Delineating Techniques of Managing Behavior in Classrooms," Journal of Research and Development in Education, Volume 4, No. 1, Fall, 1970, p. 70.

To obtain measures of reliability two techniques were employed; a) the percent of agreement between two observers using the frequencies of utterances, and b) the correlation of agreement between two observers' categorization of utterances.

Each observer recorded and categorized each teachers' utterances. At the conclusion of the observation period the frequencies per category were computed. The percent of agreement technique compared the total number of those recorded and categorized utterances that were found on both observation schedules to the observer who had recorded the greatest frequency of utterances. This ratio formed the percent of agreement. This meant that both those utterances which only one observer recorded and those statements which both observers recorded, but categorized differently, reduced the percent of agreement.

This technique was used in five classrooms during a tryout of the classroom observation instrument. The resultant percentages of agreement were: 80; 83; 84; 86; and 96.

For the same tryout observations a coefficient of reliability using a Pearson product correlation technique was also done. For each teacher the frequency of categorized statements per category were correlated between observers. The resultant coefficients were: .95; .98; .98; .99; and .99.

Classroom Observation Instrument's Validity

One commonly used method to obtain a measure of the validity of a classroom observation instrument is to assume that if two observers consistently categorize behavior reliably, they must be measuring the same thing, and thus some validity is shown, Brown, (1970). The procedure calls for computing the square root of the percents of agreement used as a measure of reliability, and identifying these as the validity coefficients. The validity coefficients for the five tryout classroom observations were: .89; .91; .92; .93 and .98.

In order to obtain more comprehensive evidence of validity a group of twenty Master's level students in education responded to an instrument containing a selected sample of ninety verbatim teacher utterances. Students were asked to categorize all utterances into five categories plus a miscellaneous category.

When the data were collected, the percent of students responding to the same category for which each specific utterance (item) was constructed was computed per item. From this analysis, a median percent per category over the twenty students was computed. The square root of these percents was found and referred to as the validity coefficient per category. These coefficients are shown in Table 4.

Table 4: Median Percent of Agreement, Range of Agreement Among Items and Validity Coefficients Per Category

	Category					
	Low Cognitive	High Cognitive	Tool-Skill	Affective-Personal	Affective Interactive	Misc.
Median % of Agreement	90	85	60	75	75	85
Range of Agreement Among Items	55-100	45-100	10-95	20-95	45-100	45-100
Validity Coefficient	.95	.92	.77	.87	.87	.92

Data Collection

Each of the randomly selected six school districts included in the study were initially contacted in order to secure their cooperation and to work out the details of data collection. In each district, the district's assistant superintendent in charge of instruction was the original contact. Once the district had decided to participate in the study, arrangements were made to meet with each selected sample within the district.

At the initial meeting with the teachers, it was explained that the study was in the area of the behavioral objectives and that each teacher would be observed twice; before and after doing the Q-sort. It was stated that each observation would take thirty minutes, and would occur randomly within the school day with the provision that, during the observation period, the teacher was the sole instructional adult present. During this initial meeting, the individual teachers' daily schedules were collected.

After this initial meeting with the teachers, a schedule was made for observations and the administration of the Q-sort.

The group of teachers, administrators and community members in each district were administered the Q-sort as a total group. The instructions were read aloud to the group and after any questions in regard to the instructions were asked and answered the individuals did the sort.

Two observers, trained in the category system, conducted two thirty-minute observations in the classroom of each of the thirty teachers. Both observers sat at the rear of the classroom at opposite sides. The beginning and ending of the observation was synchronized by the use of hand signals. The observations occurred randomly during the school day with the provisos that, a) one was done in the morning and

one in the afternoon, b) there would be at least two weeks between each observation, and c) that the teacher would be the adult responsible for instruction during the observation time.

After both observations were completed and the Q-sort was administered, preliminary analyses for each district were begun. The results of the preliminary analyses were reported separately to each district. Districts which chose to, four of the six, met with the researchers to discuss the report in general, and give individual results to the participants in confidence, did so.[1] All districts were assured that they would receive the final report of the study and no district, by name, would be mentioned.

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[1] These individual participating district reports, six, are to be found in Appendix C.

RESULTS

The results of this study are presented separately under each specific problem that was originally posed. The section entitled CONCLUSIONS will relate the findings of each specific problem to the general problem of the study.

Problem 1

Do most educational decision-makers have priorities concerning different categories of educational objectives which may be reflected in their assignment of priority to the specific educational objectives?

To answer this question each person's individual Q-sort was analyzed using a one-way analysis of variance (ANOVA) in order to compare the obtained means per category. If a significant F ratio, at $p < .05$, was the result, it was judged that the person had differentiated among the categories.[1] Table 5 shows that of the total of ninety persons, seventy-two, or eighty percent obtained a significant F ratio

The overwhelming percent of significant F's would strongly suggest a "positive" answer to the first specific problem: Educational decision-makers did manifest priorities of objectives in line with the theoretical categories.

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[1] For a discussion of this technique see Fred Kerlinger," Draft of Chapter on Q" for Stephenson Festschrift book, Brown & Co., Dec.,1969 pp. 17-18.

Table 5

Q-Sort Means of Each Person Per Category by District Level and Type of Educational Decision Maker and Resultant F Value.

Level of District - LOW

		Tool-Skill	Low-Cognitive	High Cognitive	Affective-Personal	Affective-Interactive	F Value
Teacher	1	3.85	4.40	6.40	6.30	4.05	9.330*
	2	4.55	3.60	5.30	6.80	4.75	7.832*
	3	2.95	4.10	5.90	6.35	5.70	13.56*
	4	4.45	4.25	5.30	6.35	4.65	3.885*
	5	4.10	4.60	4.50	6.45	5.35	4.317*
Administrator	1	4.25	4.65	6.40	5.95	3.75	7.02*
	2	5.10	4.05	4.95	5.85	5.05	1.876
	3	4.55	4.65	6.45	5.05	4.30	3.56*
	4	5.15	4.75	6.25	5.35	3.50	5.195*
	5	3.50	3.70	6.95	5.70	5.15	13.864*
Community Member	1	4.85	5.70	5.80	4.70	3.95	2.777*
	2	5.35	4.45	4.45	4.95	5.80	1.547
	3	5.65	5.35	5.55	5.10	3.35	4.517*
	4	4.60	5.25	5.00	5.35	4.80	.415
	5	5.70	4.35	4.30	6.00	4.65	3.017*

DISTRICTS

Teacher	1	5.65	4.05	5.25	5.15	4.90	1.607
	2	4.45	3.35	4.70	6.35	6.15	9.214*
	3	5.00	4.05	5.70	4.90	5.35	1.734
	4	4.45	3.85	5.70	5.90	5.10	3.581*
	5	4.15	4.25	5.10	6.00	5.50	3.044*
Administrator	1	5.45	3.35	4.45	6.25	5.50	6.896*
	2	3.60	5.40	6.00	5.75	4.75	5.553*
	3	3.95	4.85	6.75	5.30	4.15	6.825*
	4	5.05	4.45	5.50	5.45	4.55	1.063
	5	4.30	4.05	5.95	5.75	4.95	3.476*
Community Member	1	5.45	4.95	5.95	4.75	3.95	2.718*
	2	5.70	4.55	5.65	5.80	3.30	6.214*
	3	5.55	4.60	4.95	5.60	4.30	1.481
	4	5.20	5.00	3.75	5.25	5.80	2.724*
	5	5.65	4.65	3.15	5.65	5.90	7.18 *

* signifies at $p < .05$

Table 5 Continued

Q-Sort Means of Each Person Per Category by District Level and Type of Educational Decision Maker and Resultant F Value.

Level of District - MIDDLE

			Tool-Skill	Low-Cognitive	High-Cognitive	Affective-Personal	Affective Interactive	F Value
	Teacher	1	6.45	3.40	4.15	5.95	5.05	9.2731*
		2	4.45	4.55	5.45	6.15	4.40	2.8367*
D		3	4.95	3.05	5.05	5.75	6.20	8.3175*
		4	5.00	3.15	4.95	6.15	5.75	7.3795*
		5	3.95	4.75	6.10	6.20	4.00	6.5030*
I	Administrator	1	3.50	5.20	6.60	5.30	4.40	7.3611*
		2	4.60	3.65	5.35	6.20	5.20	4.5253*
		3	3.20	6.05	5.75	5.75	4.25	8.7485*
S		4	3.75	4.35	6.25	6.25	4.40	7.6735*
		5	4.30	4.85	5.10	5.80	4.95	1.3029
	Community	1	4.65	4.40	5.10	5.65	5.20	1.0576
T	Member	2	4.20	3.50	5.20	6.60	5.50	8.1829*
		3	4.25	4.95	6.10	5.60	4.10	3.5952*
		4	4.60	3.85	3.95	5.95	6.65	9.1098*
R		5	4.50	5.20	5.45	5.35	4.50	.9539
I								
	Teacher	1	4.20	3.75	4.65	5.90	6.50	7.5165*
		2	4.75	2.50	4.30	6.55	6.90	35.3617*
C		3	4.45	4.05	6.40	6.00	4.10	6.7808*
		4	5.35	3.70	5.45	5.05	5.45	2.6127*
		5	4.65	3.15	4.30	6.90	6.00	14.9273*
T	Administrator	1	4.35	4.55	5.95	5.30	4.85	1.8762
		2	3.80	4.90	5.70	5.75	4.85	3.0173*
		3	3.05	4.30	5.50	5.55	6.60	11.7286*
S		4	4.00	4.05	6.15	6.25	4.55	6.8072*
		5	6.30	4.75	4.00	4.60	5.35	3.722 *
	Community	1	4.55	3.85	5.05	6.25	5.30	3.9295*
	Member	2	6.60	4.40	4.05	5.30	4.65	5.2181*
		3	6.00	4.30	4.05	5.40	5.25	3.1391*
		4	6.05	5.30	4.00	6.05	3.60	7.2796*
		5	4.80	4.85	5.50	5.45	4.40	.9654

* signifies at $p < .05$

Table 5 Continued

Q-Sort Means of Each Person Per Category by District Level and Type of Educational Decision Maker and Resultant F Value.

Level of District - HIGH

			Tool-Skill	Low-Cognitive	High Cognitive	Affective-Personal	Affective-Interactive	F Value
	Teacher	1	3.80	4.15	6.25	6.95	3.85	15.5121*
		2	3.60	4.30	5.70	6.35	5.25	5.683*
D		3	4.85	4.05	4.15	5.70	6.25	4.6992*
		4	4.35	4.00	6.00	5.70	4.95	3.553*
		5	4.85	3.05	5.65	6.15	5.30	8.0301*
I	Administrator	1	4.15	4.10	5.30	6.15	5.30	3.723*
		2	4.75	5.70	6.05	5.30	3.20	6.798*
		3	4.65	3.80	4.60	6.70	5.25	6.265*
S		4	3.70	4.85	6.00	6.25	4.20	6.676*
		5	3.60	5.50	6.65	5.25	4.00	8.680*
	Community	1	3.45	4.05	4.50	6.60	6.40	13.391*
T	Member	2	3.70	4.25	4.80	5.80	6.45	6.887*
		3	3.15	4.20	5.45	6.80	5.40	12.354*
		4	5.35	5.85	5.40	4.05	4.35	2.7572*
R		5	4.45	5.10	4.80	6.15	4.50	2.2329
I								
	Teacher	1	5.25	3.55	5.15	6.25	4.80	4.8366*
		2	4.35	4.45	5.90	5.55	4.75	2.2012
C		3	5.80	4.00	5.50	5.35	4.35	2.8966*
		4	5.20	5.20	5.30	5.05	4.25	.8057
		5	5.70	3.60	4.75	5.30	5.65	3.7081*
T	Administrator	1	5.40	4.65	5.25	5.60	4.10	1.723
		2	5.05	4.75	5.60	5.30	4.30	1.115
		3	3.10	4.40	6.30	6.35	4.85	11.969*
S		4	3.75	5.25	5.55	5.30	5.15	2.379
		5	4.55	3.45	5.90	6.25	4.85	6.825*
	Community	1	4.95	4.80	3.75	5.75	5.75	23.883*
	Member	2	5.40	3.85	3.95	5.85	5.95	5.497*
		3	4.85	4.30	3.80	5.85	6.20	5.345*
		4	4.15	5.15	5.85	5.70	4.15	3.228*
		5	4.20	4.05	4.95	6.55	5.25	5.179*

* signifies at $p \leq .05$

This finding was manifested not only by the total group but within each of the three groups also. No significant differences were found among the three groups or among districts of different economic levels when the number of significant F ratios obtained were compared by use of a chi square analysis. Of the thirty teachers, twenty-six obtained significant F's as did twenty-three of the thirty administrators and twenty-two of the thirty community members. Of the thirty educational decision-makers in districts designated as being "low", twenty-three obtained significant F's as did twenty-five for the "middle" districts and twenty-four for the "high" districts.

Thus educational decision-makers did select priorities among the categories of behaviorally stated objectives both in general and specifically within their groups. No evidence of any differentiation within this finding was found. The range of percent of significant F's obtained among groups was seventy-three community members to eighty-seven teachers.

Problem 2

Do the three groups of educational decision-makers, namely the administrators, teachers, and community members within a given school district agree in the priorities they assign to the educational objectives?

As a gross measure of the degree of agreement among the three groups of educational decision-makers within each district the grand means for each category for each group were correlated. Thus, for each district the general level of agreement over the five categories between each of the three groups was calculated. Table 6 shows the obtained means.

Table 6

Summary of Grand Means of Teachers, Administrators and Community Members by Category Per District.

GRAND MEANS

District Level	Category	Teachers	Administrators	Community Members
Low, 1	Tool-Skill	4.74	4.47	5.51
	Low-Cognitive	3.91	4.42	4.75
	High-Cognitive	5.29	5.73	5.64
	Affective-Personal	5.66	5.70	5.40
	Affective-Inter-active	5.40	4.08	4.65
Low, 2	Tool-Skill	3.88	4.51	5.23
	Low-Cognitive	4.19	4.36	5.02
	High-Cognitive	5.48	6.20	5.02
	Affective-Personal	6.45	5.58	5.22
	Affective-Interactive	5.01	4.35	4.51
Middle, 1	Tool Skill	4.68	4.30	5.60
	Low-Cognitive	3.40	4.51	4.54
	High-Cognitive	5.05	5.46	4.53
	Affective Personal	6.08	5.49	5.69
	Affective-Interactive	5.79	5.24	4.64
Middle, 2	Tool-Skill	4.96	3.87	4.44
	Low-Cognitive	3.78	4.82	4.38
	High-Cognitive	5.14	5.81	5.16
	Affective-Personal	6.04	5.86	5.83
	Affective-Interactive	5.08	4.64	5.19
High, 1	Tool-Skill	4.29	4.17	4.02
	Low-Cognitive	3.91	4.79	4.69
	High-Cognitive	5.55	5.72	4.99
	Affective-Personal	6.13	5.93	5.88
	Affective-Interactive	5.12	4.39	5.42
High, 2	Tool-Skill	5.26	4.37	4.71
	Low-Cognitive	4.16	4.50	4.43
	High-Cognitive	5.32	5.72	4.46
	Affective-Personal	5.50	5.76	5.94
	Affective-Interactive	4.76	4.65	5.46

Table 7 shows the obtained correlations (r) between each pair of groups of educational decision-makers over the five categories for each district.

Table 7

Correlations Between Each Pair of Educational Decision Makers Per District.

	Obtained Correlations		
District	Community Members vs. Teachers	Community Members vs. Administrators	Teachers vs. Administrators
Low, 1	.354	.745	.498
Low, 2	.041	.349	.713
Middle, 1	.393	-.121	.745
Middle 2	.866	.750	.458
High, 1	.801	.641	.767
High, 2	.405	.345	.640

Given the gross nature of the analyses; correlating but five pairs at a time, the resultant r's are surprisingly high and consistently so, with but a few exceptions. When each person's responses on the one-hundred items were correlated per district, forming six fifteen by fifteen matrices, the r's ranged from low negative r's, -.20 to high positive r's, .70, with the predominant number resulting in low, .30, positive r's. Of the 630 obtained r's, 425 or 67% were found significantly positive at $p < .05$ and thirty-five or about five percent were greater than .60. In addition, within individual school districts the percent of significant positive r's ranged between 60% and 76% within the same district. The lack of definite patterns within individual districts led to the decision not to perform factor analyses within districts for it was judged that information among districts was of more value than the, apparently sketchy, information within districts.

As a result, no definitive answer can be offered in response to problem two. There seems to be a modicum of agreement among the groups of educational decision-makers within the individual districts with quite some variability, which is unique to particular districts.

PROBLEM 3

Is there a relationship between the type of school district and the category of educational objectives which receives high priority?

Table 8 shows the number of means per category, per person, by level and group of educational decision-makers which received a ranking of greater than five. Greater than five is to be interpreted as meaning that the individual chose this category as being "important". It should be noted that the mean ranking of the one-hundred items in the Q-sort is five.

Table 8 - Number of Means per Category Ranked as Being "Important".

Key: T. = Teachers
Adm. = Administrators
C.M. = Community Members

District	High			Medium			Low			Total			Grand Total
Category	T.	Adm.	C.M.	T.	Adm.	C.M.	T.	Adm.	C.M.	High	Med.	Low	
Tool-Skill	4	2	2	2	1	3	1	4	8	8	6	13	27
Low-Cognitive	1	3	3	-	2	2	-	1	3	7	4	4	15
High-Cognitive	8	9	3	5	9	6	8	8	4	20	20	20	60
Affective-Personal	10	10	9	10	9	10	9	10	7	29	29	26	84
Affective-Interactive	4	3	7	7	3	5	6	3	3	14	15	12	41

This table suggests that overall the categories of high-cognitive and affective personal were regarded by most persons as being the most important. Sixty-seven percent of all persons ranked the category of high-cognitive as important. Ninety-four percent of all persons ranked the category of affective personal as important.

The categories of tool-skill, thirty percent, and low-cognitive, seventeen percent, were ranked as those categories of least importance overall.

Table 9 reports the number of persons that ranked each category as most important.

Table 9 - Number of Persons Ranking Each Category as Most Important.

Table 9

Category	Number of Persons
Tool-Skill	9
Low-Cognitive	2
High-Cognitive	28
Affective-Personal	41
Affective-Interactive	14
Total	94

The above discussion suggests that overall there was general agreement as to the categories ranked as most important irregardless of type of district.

The only discrepancy found was in the category of tool-skill wherein the "low" districts ranked this category as a relatively higher priority; 13 versus 6 and 7, although this difference was not found to be significant.

In conclusion it can be said that the type of district did not make any difference in which categories received high priority.

PROBLEM 4

Is there a relationship between type of school district and the amount of agreement among the three groups within the district?

Evidence relating to this problem was found in two ways. First, correlations were computed between the three sets of educational decision makers: a) Teachers - Administrators, b) Teachers - Community Members, and c) Administrators - Community Members, over the five grand means per group per category. Second, a three factorial analysis of variances was computed per category. The three dimensions of the ANOVA were: a) educational decision maker-teacher, administrator and community member, b) level of district - "high", "medium" and "low", and c) individual school districts which were nested within the factor of "level of district".

Table 10 describes the obtained correlations between groups of educational decision-makers by level of districts.

TABLE 10 - Correlations Between Groups of Educational Decision-Makers for Level of District.

TABLE 10

Level of District	Groups of Decision Makers Teacher-Adm	Teacher-Comm. Mem.	Adm.-Comm. Mem.
Low	.621*	.136	.519
Medium	.558*	.594*	.399
High	.712*	.646*	.501

* = $p < .10$

Irrespective of level of district significant r's were found when comparing the means of categories for teachers and administrators. For administrators versus community members no r was found to be significant, however, all three tended strongly in that direction. When comparing teachers versus community members the obtained r's for both "medium" and "high" districts were significant. The resultant r for "low" districts was relatively small, .136. These data would suggest that, in the main, groups within districts tend to agree with the exception of teachers versus community members in "low" districts. This finding is buttressed when one examines the ANOVA results and keeps in mind the findings from Problem 4.

Table 11 shows the resultant F's per category for groups of educational decision makers, levels of school, school nested within levels of school and the categories of educational objective.

TABLE 11 - A-N-O-V-A of Group Level and School Per Category of Educational Objective.

TABLE 11

	Tool Skill Mean Sq.	F Value	Low Cognitive Mean Sq.	F Value	High Cognitive Mean Sq.	F Value	Affective Personal Mean Square	F Val.	Affective Interactive Mean Square	F Value
(A) Group of Ed. Dec. Mak.	3.069	6.369*	4.996	12.886*	6.89	12.536*	.854	NS	2.044	3.148*
(B) Level of School District	.562	NS	.348	NS	.350	NS	.320	NS	.934	NS
(C) School Within Level	1.715	3.560*	.161	NS	.768	NS	.280	NS	.423	NS
(D) Group (A) by Level (B)	1.547	3.211*	.510	NS	.182	NS	.486	NS	1.079	NS
(E) A by B by C	.694	NS	.175	NS	.130	NS	.384	NS	.515	NS
Error	.482		.388		.558		.280		.649	

* = $p < .05$

1. This finding was only in the category of tool-skill and can be explained by the relative uniqueness of two school districts, one high and one middle, both of whom (4.16 and 4.423) ranked this category significantly lower than all other districts, all of whom ranged from 4.78 to 4.90.

Table 12 describes the results of the follow-ups that were performed when the significant F main effects were found. The Tukey-A method[1] was used for all mean comparisons with an alpha level of .05.

Table 12 - ANOVA Follow-up of Significant Main Effects.

TABLE 12

Category *	Main Effect Tested	Significant Differences Found
Tool Skill	Level of Educaticnal Decision Maker	Teachers (4.65) versus Administrators (4.28);Comm. Members (4.92) Versus Administrators (4.28)
Low-Cognitive	Level of Educational Decision Maker	Teachers (3.90 Versus Adm. (4.57) Teachers (3.90) Vs. Comm. Mem. (4.64)
High-Cognitive	Level of Educational Decision Maker	Teachers (5.30)vs. Adm. (5.77) Teachers (5.30)vs. C.M. (4.81) Adm. (5.77)vs. C.M. (4.81)
Affective-Interactive	Level of Educational Decision Maker	Teachers (5.18) vs. Adm.'s (4.66)

* No significant main effects were found for the category of affective personal.

The interaction between group of decision makers and level of school district in the category of tool-skill can best be explained by the relatively higher ranking given by community members in "low" districts, 4.93 and low ranking by teachers 4.24, as contrasted to lower ranking given by community members in "high" districts, 4.19, and high ranking by teachers, 4.93.

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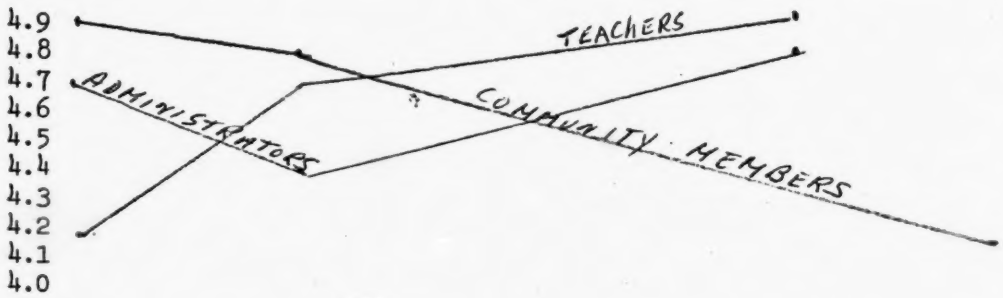
[1] See Glass and Stanley, Statistical Methods in Education and Psychology, Prentice-Hall, Inc., Englewood Cliffs, N.J., 1970, pps. 383-385 and 443-446.

Table 13 - Graphic Plot of Group of Educational Decision Maker by Level of School District.

TABLE 13

MEANS

Level of District	Group of Educational Decision Makers	Teacher	Administrators	Comm.Mem.
Low		4.24	4.74	4.93
Middle		4.74	4.38	4.79
High		4.93	4.79	4.19



These analyses of variance seem to indicate that the groups regardless of level of district or of particular school district, have differences in ranking of categories. However, the over-riding findings are the differences among the categories, rather than within the categories. For example, although it was shown that three of a possible five F ratios were significant in the tool-skill category in all cases the means were less than five, ie. they were relatively unimportant. Furthermore, for that category which was overwhelmingly chosen as the most important, affective personal; wherein 84 of the 90 respondents ranked it as important;[1] no significant differences were found by school districts or groups of educational decision-makers.

Problems 5 and 6.

Is there a correspondence between the degree of priority assigned to a category and the extent with which that is observable in the classroom? and Is there a relationship between the amount of agreement within a school district and the degree of correlation between assigned priorities and behaviors observable in the classroom?

Because the answer to the second problem iscontingent on the first,

[1] see Table 6 p. 21

they will be examined simultaneously.

Table 14 presents the observed mean frequencies of utterance per category and the normalized T scores derived from those mean frequencies.

Table 14 - Observed and Transformed Mean Frequencies of Utterances Per Teacher, Per Category

TABLE 14

Category:	Low-Cognitive		High-Cognitive		Tool-Skill		Affective-Personal		Affective-Interactive	
	OMF*	TMF*	OMF	TMF	OMF	TMF	OMF	TMF	OMF	TMF
Teacher										
1	15.5	53.4	4.0	41.8	70.0	100.0	10.0	48.3	12.0	50.7
2	2.0	37.2	5.5	43.8	17.0	56.6	21.5	60.2	10.5	49.3
3	23.5	61.4	13.5	51.7	41.0	70.5	15.0	53.1	17.5	57.3
4	16.0	54.7	21.0	59.7	5.0	43.6	14.0	52.2	34.5	66.2
5	53.5	74.5	43.0	72.3	10.0	48.3	5.0	43.6	7.5	45.9
6	16.5	54.5	16.0	54.7	26.5	63.6	3.5	40.1	1.5	35.9
7	22.0	60.5	18.0	58.4	16.5	55.4	10.5	49.3	4.5	42.5
8	7.5	45.9	7.5	45.9	22.5	60.8	3.5	40.1	0.0	34.5
9	6.0	44.4	15.5	53.4	18.0	58.4	10.5	49.3	4.0	41.8
10	13.0	51.3	39.5	69.3	5.0	43.6	15.0	53.1	0.0	34.5
11	4.5	42.5	12.5	50.8	11.5	49.9	16.0	54.7	3.0	39.2
12	38.0	67.5	16.5	55.4	21.5	61.2	18.0	58.4	6.5	44.8
13	13.0	51.3	16.0	54.7	38.5	68.4	7.0	45.3	20.0	59.4
14	20.0	59.4	35.5	66.7	4.0	41.8	3.0	39.2	8.5	46.8
15	30.0	65.0	31.5	65.5	24.5	62.4	6.5	44.8	2.0	37.2
16	25.5	63.2	10.5	49.3	12.0	50.7	0.5	35.0	0.0	34.5
17	2.5	37.6	4.0	41.8	15.0	53.1	11.0	49.7	5.0	43.6
18	4.5	42.5	17.5	57.3	8.5	46.8	16.0	54.7	17.0	56.6
19	8.5	46.8	27.0	64.0	19.5	58.9	0.0	34.5	4.0	41.8
20	0.0	34.5	14.0	52.2	10.5	49.3	17.0	56.6	6.0	44.4
21	15.0	53.1	11.0	49.0	24.0	62.1	1.0	35.5	0.0	34.5
22	12.0	50.7	12.0	50.7	25.0	62.0	9.0	47.6	0.0	34.5
23	2.0	37.2	8.0	46.2	17.0	56.6	18.0	58.4	13.0	51.3
24	3.0	39.2	5.0	43.6	18.0	58.4	14.0	52.2	17.0	56.6
25	4.0	41.8	16.0	54.7	24.0	62.1	17.0	56.6	9.0	47.6
26	7.0	45.3	10.5	49.3	23.5	61.4	13.5	51.7	3.5	40.1
27	16.5	55.4	14.5	52.4	10.0	48.3	9.0	47.6	9.0	47.6
28	9.5	48.1	9.0	47.6	12.0	50.7	3.5	40.1	0.0	34.5
29	29.5	64.5	6.0	44.4	3.0	39.2	0.0	34.5	7.0	45.3
30	19.5	58.9	16.0	54.7	17.5	57.3	4.0	41.8	8.0	46.2
Means	15.14	51.41	14.67	53.4	15.88	56.71	9.75	47.61	7.68	44.83
Standard Deviations	12.22	10.28	12.06	8.06	10.15	11.35	6.31	7.7	7.69	8.46

* Observed Mean Frequencies
** Transformed Mean Frequencies

Table 15 presents the Q-sort means and transformed means from the observations for each teacher and for each category. Table 15 also presents the computed coefficient of correlation between the Q-sort means and the observation means by category for each teacher.

The correlation coefficients ranged from -.961 to .719. Of the total of thirty teachers, nineteen showed a positive relationship between their assignment of educational priorities and their practice of these priorities; eleven showed a negative relationship. None of the nineteen positive coefficients were found to be significantly different from zero. Overall, for all teachers and for all categories, a slightly negative correlation coefficient was found, -.150, between all teachers' assigned priorities and practiced priorities . However, this also, was not found to be significantly different from zero. As a result, no correspondence was found between the degree of priority assigned to a category and the extent with which it was observable in the classroom.

Table 15 Q-Sort Means and Transformed Observation Means Per Teacher, Per Category and Resultant Correlation Coefficients

TABLE 15

Category:	Low-Cognitive		High-Cognitive		Tool=Skill		Affective Personal		Affective-Interactive		Correlation Coefficients
	Q-SM*	TOM **	Q-SM	TOM	Q-SM	TOM	Q-SM	TOM	Q-SM	TOM	
-Teacher											
1	4.40	53.4	6.40	41.8	3.85	100.0	6.30	48.3	4.05	50.7	- .632
2	3.60	37.2	5.30	43.8	4.55	56.6	6.80	60.2	4.75	49.3	.719
3	4.10	61.4	5.90	51.7	2.95	70.5	6.35	53.1	5.70	57.3	- .961*
4	4.25	54.7	5.30	59.7	4.45	43.6	6.35	52.2	4.65	66.2	.007
5	4.60	74.5	4.50	72.3	4.10	48.3	6.45	43.6	5.35	45.9	- .536
6	4.05	54.5	5.25	54.7	5.65	63.6	5.15	40.1	4.90	35.9	.208
7	3.35	60.5	4.70	58.4	4.45	55.4	6.35	49.3	6.15	42.5	- .883
8	4.05	45.9	5.70	45.9	5.00	60.8	4.90	40.1	5.35	34.5	- .141
9	3.85	44.4	5.70	53.4	4.45	58.4	5.90	49.3	5.10	41.8	.120
10	4.25	51.3	5.10	69.3	4.15	43.6	6.00	53.1	5.50	34.5	.042
11	3.40	42.5	4.15	50.8	6.45	49.9	5.95	54.7	5.05	39.2	.473
12	4.55	67.5	5.45	55.4	4.45	60.2	6.15	58.4	4.40	44.8	.068
13	3.05	51.3	5.05	54.7	4.95	68.4	5.75	45.3	6.20	59.4	.108
14	3.15	59.4	4.95	66.7	5.00	41.8	6.15	39.2	5.75	46.8	- .607
15	4.75	65.0	6.10	65.5	3.95	62.4	6.20	44.8	4.00	37.2	.119
16	3.75	63.2	4.65	49.3	4.20	50.7	5.90	35.0	6.50	34.5	- .958*
17	2.50	37.6	4.30	41.8	4.75	53.1	6.55	49.7	6.90	43.6	.527
18	4.05	42.5	6.40	57.3	4.45	46.8	6.00	54.7	4.10	56.6	.609
19	3.70	46.8	5.45	64.0	5.35	5.89	5.05	34.5	5.45	41.8	.252
20	3.15	34.5	4.30	52.2	4.65	49.3	6.90	56.6	6.00	44.4	.689
21	4.15	53.1	6.25	49.7	3.80	62.1	6.95	35.5	3.85	34.5	- .398
22	4.30	50.7	5.70	50.7	3.60	62.8	6.15	47.6	5.25	34.5	- .584
23	4.05	37.2	4.15	46.2	4.85	56.6	5.70	58.4	6.25	51.3	.664
24	4.00	39.2	6.00	43.6	4.35	58.4	5.70	52.2	4.95	56.6	.005
25	3.05	41.8	5.65	54.7	4.85	62.1	6.15	56.6	5.30	47.6	.638
26	3.55	45.3	5.15	49.3	5.25	61.4	6.25	51.7	4.80	40.1	.442
27	4.45	55.4	5.90	52.4	4.35	48.3	5.55	47.6	5.75	47.6	- .044
28	4.00	48.1	5.50	47.6	5.80	56.7	5.35	40.1	4.35	34.5	.376
29	5.20	64.5	5.30	44.4	5.20	39.2	5.05	34.5	4.25	45.3	.092
30	3.60	58.9	4.75	54.7	5.70	57.3	5.30	41.8	5.65	46.2	- .521

* = Q-Sort Means
** = Transformed Observation Means
= < .01

It would seem that these teachers, in general, believe that the category of affective-personal is the most important. However, they do not seem to translate this priority into their verbal classroom practice. When one examines teachers' overall ranking of the categories in the Q-sort the categories of affective-personal, (mean 5.98), high cognitive , (mean 5.30), and affective-interactive, (mean 5.18) emerge as the top three categories. However, the overall means of observed behavior rank the categories of tool-skill, (mean 56.71), high-cognitive, (mean 53.4) and low-cognitive, (mean 51.41) as highest.

Although, in general, the teachers in this study seemed to practice those categories they assigned as being less important most often, this was not the case for all teachers. Some teachers did tend to practice with greater frequency, those categories they assigned as most important.

Table 16 presents the five teachers that had the highest positive correlation coefficients, all greater than .60, and examines their two highest assigned and practiced categories.

Table 16 - Teachers with the Highest Correlation Coefficients Between Assigned and Practiced.

Table 16

Teacher #*	Correlation Coefficient	Two Highest Assigned Categories With Means		Two Highest Practiced Categories With Means	
2	.719	Affective-Personal	6.80	Affective-Personal	60.2
		High Cognitive	5.30	Tool-Skill	56.6
8	.609	High Cognitive	6.40	High-Cogniive	57.3
		Affective Personal	6.00	Affective-Interactive	56.6
20	.689	Affective-Personal	6.90	Affective-Personal	56.6
		Affective- Interactive	6.00	High Cognitive	52.2
23	.664	Affective-Interactive	6.25	Affective-personal	58.4
		Affective-personal	5.70	Tool-Skill	56.6
25	.638	Affective-personal	6.15		
		High-Cognitive	5.65	Tool-Skill	62.1
				Affective-personal	56.6

* All Five teachers had significant Q-sort results at p .01

Of these teachers who had the five highest coefficients of correlation, although none of them were found to be significant, all five selected the categories of the affective-personal, affective-interactive or high-cognitive as being the most important. Four of the five practiced the categories of affective-personal or high cognitive most frequently. The fifth teacher, number 25, practiced affective-personal second most frequently, although affective-personal had been the highest choice in the Q-sort.

Table 17 presents the five teachers who had the highest negative correlation coefficients, all greater than minus .60 and examines their two highest assigned and practiced categories.

Table 17: teachers With the Highest Negative Correlation Coefficients Between Assigned and Practiced

TABLE 17

Teachers *	Correlation Coefficient	Two Highest Assigned Categories With Means		Two Highest Practiced Categories With Means	
1	- .632	High-Cognitive	6.40	Tool-Skill	100.0
		Affective-Personal	6.30	Low-Cognitive	53.4
3	- .961	Affective-Personal	6.35	Tool-Skill	70.5
		High-Cognitive	5.90	Low-Cognitive	61.4
7	- .883	Affective-Personal	6.35	Low-Cognitive	60.5
		Affective-Interactive	6.15	High-cognitive	58.4
14	- .607	Affective-Personal	6.15	High-Cognitive	66.7
		Affective-Interactive	5.75	Low-Cognitive	59.4
16	- .958	Affective-Interactive	6.50	Low-Cognitive	63.2
		Affective-Personal	5.90	Tool-Skill	50.7

* All Five Teachers had significant Q-sort results at $p < .01$

The evidence suggests that because no relationship was found between perceived priorities and observed practice in the classroom no differentiating relationships could be found among school districts.

CONCLUSIONS AND IMPLICATIONS

The following are the conclusions that can be inferred from the study:

The overriding conclusion is that educational decision-makers given a choice of behaviorally stated educational objectives do make choices that conform to theorized categories.

There is a general consensus among a) different types of local school districts and b) different types of educational decision-makers as to the categories of behaviorally stated objectives which are most important namely affective-personal and high-cognitive.

There is no evidence to suggest that teachers attempt to teach to those categories of objectives they and their district have specified as most important. This finding coupled with the paucity of curricular materials in these areas[1] results in what may be called an "incongruent" situation.

This incongruity and the above findings imply two most important problems.

First, although the categories of affective-personal and high-cognitive were ranked as most important there is a clear cry for the learning of tool-skill objectives in all quarters. Perhaps the "Right to Read" program personifies this most clearly. In a sense the teachers are seemingly directing their efforts in this area. The problem seems to be twofold. First, the categories of affective-personal and high-cognitive seem to be "socially acceptable" and because we seem to know so little about them instinctively, they become in fact rhetoric.

Second, it may be suggested that the category of tool-skill is not on the same level of discourse as are the other categories in so far that objectives only become tool skills <u>after</u> they are learned; during instruction they are not. It would seem that perhaps it is the affective component that enables the tool skill objectives to be learned, Alschuler, (1969). The findings in this study point out the problems of the lack of congruity between what may be socially acceptable versus what may be, in fact, desired and the complex interrelationships among the categories. This study's most important element may well be the discovery of these types of problems.

The second major problem is that the consensus of priorities of categories in no way seems to have any effect upon classroom instruction, irregardless of the school district. This problem suggests that although methods for systematically selecting objectives are available, such as the one used in this study and the similar one outlined by

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[1] See Page 2

Popham, (1972), there are no guarantees that these are really the "felt" objectives nor that by describing them one can expect an automatic effect in the classroom.

What seems to be needed are the following: First, a general acceptance of priorities in the categories of affective-personal and high-cognitive educational objectives buttressed by tool-skill objectives. Second, more study into the relationship among the categories in such a manner that best promotes the learning of these objectives. Third, methods by which teachers can be trained to effectuate those objectives they select as most important and are congruent with the priorities of other decision-makers. Finally, the question must be raised as to whether there <u>should</u> be a differentiation in priorities among different types of school districts and different educational decision-makers, and, if so, what might be the results of these differentiations?

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APPENDIX A

Q-sort Items

Administration Instructions

Sort the 100 items into 11 piles. Put the number of cards as indicated below in each pile according to degree of significance of the item. For example, two items that you think are Most Significant as objectives will be placed in the first pile on the left. The next four Most Significant cards will go in the next pile and so on to the two cards you think are Least Significant. These two cards will go in the pile on the extreme right. You need not worry about any sort of rank order within each pile.

Number of Cards in Each Pile

Most Significant								Least Significant	
4	6	10	16	24	16	10	6	4	2

The question you should keep in mind when doing this sort is: What is your judgment about the significance or insignificance of these objectives?

If you have any conflict about any one item, you may want to put it in a neutral pile. It is suggested that you first read through all the items and while reading them sort them into three piles corresponding to "Significant", "Neutral", and "Not Significant." Then make the finer sorts.

When you have completed the sort, please reconstruct the packet in the following manner (from top to bottom facing up):

1. 3 Instruction cards
2. Least Significant card.
3. Card marked "2".
4. The two Least Significant objectives you chose.
5. Card marked "4".
6. Those four objectives.
7. Continue this until you stack your two Most Significant cards.
8. Your last card should read Most Significant.

Items for Q-sort

Following are the behaviors in each which a student performs:

I. Cognitive Tool-Skills No Content

1. Constructs and reads line and bar graphs.
2. Reads scale drawings
3. Performs the four fundamental mathematical processes including long division with whole numbers and a high degree of accuracy.

4. Demonstrates how numbers apply to time, weight, dry and liquid measures.
5. Establishes a time line for a given historical treatment of a subject.
6. Gathers necessary materials for a given task.
7. Performs an experiment in science.
8. Builds equipment according to instructions.
9. Follows written directions.
10. Gives oral directions that can be followed.
11. Demonstrates fundamental skills in reading, writing and calculating.
12. Displays appropriate masculine or feminine social role.
13. Locates information two ways by using cross references.
14. Follows teacher in directions.
15. Displays skill in budgeting time.
16. Locates and lists information using the alphabet.
17. Uses the card catalog in locating books.
18. Uses equipment such as desk calculator, typewriter, microscope accurately and within accepted time limits.
19. Follows directions for homework assignments correctly.
20. Displays physical skills necessary for ordinary games.

II. Low-Cognitive No Content

1. Identifies facts, theories, principles in a given discipline.
2. Recognizes the area encompassed by various kinds of problems or materials.
3. Child names the major theories and describes them without further looking them up.
4. Distinguishes facts from hypotheses by defining them.
5. Recognizes the terminology of a discipline.
6. Recalls details at later date from notes taken.
7. Identifies technical terms by giving their sttributes, properties or relations.
8. Defines abstract terms.
9. Identifies criteria for judgment that is appropriate to the type of work and the purpose for which it is read.
10. Identifies basic trends in a given situation.
11. Recognizes appropriate strategies in attacking a problem.
12. When called upon, recalls specific information.
13. Identifies forms and conventions of the major types of works, e.g., verse, plays, scientific papers, etc.
14. Defines specific terminology.
15. Identifies methodology specific to a discipline.
16. Recalls materials to be used in researching a specific problem.
17. Recalls specific instructions.
18. Recalls the setting of a specific selection.
19. Identifies unstated assumptions in a given theory.
20. Recalls the mood of a specific selection.

III. High-Cognitive No Content

1. Formulates appropriate hypotheses based upon an analysis of factors involved.
2. Makes use of criteria for judgment appropriate to the type of work and the purpose for which it is read.
3. Modifies hypotheses in the light of new factors and considerations.
4. Proposes ways of testing hypotheses.
5. Finds and states the basic assumptions which underlie any position.
6. Gives examples selected from the area of study which may be used to solve problems in another area or in another context.
7. Predicts the probable effect of a change on a factor.
8. Gives approximations.
9. Predicts continuation of trends.
10. Guesses.
11. Derives a proposition from a given fact which is testable grom the givens.
12. Critically evaluates certain given classroom learning goals.
13. Visualizes scenes (mental imagery).
14. Differentiates between two similar objects and states his criteria for the discrimination.
15. Developes planned sequences.
16. Attempts to organize his product to show relationships.
17. Selects relevant facts, theories, principles to the solution of a specific problem in discipline.
18. Compares the relationship between getting information through the five senses and giving information by appealing to the five senses (impression and expression).
19. Indicates logical fallacies in arguments.
20. Weighs alternative social policies and practices against the standards of the public welfare rather than the advantage of specialized and narrow interest groups.

IV. Affective-Personal

1. Changes opinion in view of submission of more data.
2. Plans a course of action and arrives at a satisfactory outcome with a minimum of adult assistance.
3. Volunteers to take responsibilities such as writing, publishing, carrying out a policy, etc.
4. after failing at a task, will attempt another similar one.
5. Will continue task or expand upon it when given a choice.
6. Memorizes a poem he likes.
7. Formulates his own objectives in the context of his studies.
8. Chooses activities independently and carries them out
9. Reads to find answers to questions which have stimulated his curiosity.
10. Designs a course of study for himself.

11. Will accept blame when self-initiated act fails.
12. Shows a desire to do unexpected task.
13. Expresses his feelings through art.
14. Will try new assignments.
15. Gives an account of what his objectives are and how far he has advanced in attaining them in an academic counseling session.
16. Seeks help when meeting with failure after an attempt has been made.
17. Expresses and defends his own opinions.
18. Does not panic in emergencies, but acts quickly and in ways to alleviate the problem.
19. Explores possibilities of different interests by attending lectures or meetings about topics new to him.
20. Takes care of school property.

V. Affective-Interactive

1. Participates in extra-curricular activities offered in academic or social institutions.
2. Refers problems that are too difficult for him to adults instead of dropping them.
3. Keeps still when the situation calls for silence.
4. Adheres to group-made rules.
5. Assists others when he is needed.
6. Shares with others.
7. Will greet others upon entering the calssroom in the morning.
8. Conducts a meeting.
9. Voices an opinion dealing with a controversial topic.
10. Does specific chores in the classroom.
11. Is willing to administer tests (spelling) to other children.
12. Is willing to perform tasks that directly involve him with other students.
13. Is willing to perform before a group.
14. Deals with others in a non-violent manner.
15. Makes and sustains conversation.
16. Practices social amenities and courtesies when exchanging ideas.
17. Draws reticent members of a group into conversation.
18. Participates in a meeting.
19. Seeks approval of other children.
20. Seeks approval of adults.

APPENDIX B

CLASSROOM OBSERVATION SCHEDULES

HOFSTA UNIVERSITY
SCHOOL OF EDUCATION

Bureau of Educational Evaluation

TEACHER OBSERVATION SHEET

Name of Teacher Observed: _____

Grade: _____ School: _____

Name of Observer: _____

Time of Observation - Begun: _____ Ended: _____ Date: _____

TEACHER'S VERBATIM COMMENTS

Comment	Category

Comment	Category

Comment	Category

SUMMARY

Category	Frequency	Percent
Low-Cognitive		
High-Cognitive		
Tool-Skill		
Affective-personal		
Affective-Interactive		
Miscellaneous		
Total		

APPENDIX C

District Reports

Hofstra University
HEMPSTEAD, LONG ISLAND, NEW YORK 11550

SCHOOL OF EDUCATION
Department of Educational Psychology

Thank you for the cooperation in helping us conduct part of our study Everyone in the district was most hospitable.

I am enclosing a report of the findings. These include:

--a listing of the items that were included in the Q-sort entitled "6th Grade Non-Content Objectives."
--a description of the categories of objectives.
--Table 1 - a summary table showing the obtained means for each parent, teacher, and administrator over each category of objectives and the grand means for each group. Included also will be a designation, per respondent, as to whether there was a significant difference at .05 among means. That is to say, were the assigned priorities differentiated among the five categories?
--Table 2 - a statistical, Pearson Product Moment Correlation, analysis comparing the grand means per group over the five categories and the resultant significance level.
--Table 3 - a summary table showing the obtained mean per teacher for categories in the Q-sort and frequency of observations per category.
--Table 4 - a statistical, Pearson Product Moment Correlation, analysis comparing each teacher's mean per category in the Q-sort to each teacher's observed frequency of categories within the classroom and the resultant significance level. A reliability index for each teacher between observers is also reported. This reliability index is given in terms of percent

of agreement between the observers.
--a summary of the statistical analysis and conclusions thereof.

Once you have had a chance to examine these materials, if the district wishes, I would be happy to meet with all those who have participated in order to elaborate upon the findings. Also, if any participant wishes to know specifically his findings, I will be more than willing to discuss these with him privately.

I look forward to meeting with you again. If you have any questions, please do not hesitate to call.

Cordially yours

Pierre Woog
Administrative and Research Associate
Bureau of Educational Evaluation

tc
Enclosures

Table 1. Q-Sort Summary Sheet of Means by Category of Objective.

	Tool-skill	Low-Cognitive	High-Cognitive	Affective-Personal	Affective-Interactive
Community					
1*	4.55	3.85	5.05	6.25	5.30
2*	6.60	4.40	4.05	5.30	4.65
3*	6.00	4.30	4.05	5.40	5.25
4*	6.05	5.30	4.00	6.05	3.60
5	4.80	4.85	5.50	5.45	4.40
Grand Means	5.60	4.54	4.53	5.69	4.64
Teachers					
1*	4.20	3.75	4.65	5.90	6.50
2*	4.75	2.50	4.30	6.55	6.90
3*	4.45	4.05	6.40	6.00	4.10
4*	5.35	3.70	5.45	5.05	5.45
5*	4.65	3.15	4.30	6.90	6.00
Grand Means	4.68	3.43	5.02	6.08	5.79
Administrators					
1	4.35	4.55	5.95	5.30	4.85
2*	3.80	4.90	5.70	5.75	4.85
3*	3.05	4.30	5.50	5.55	6.60
4	6.30	4.75	4.00	4.60	5.35
5*	4.00	4.05	6.15	6.25	4.55
Grand Means	4.30	4.51	5.46	5.49	5.24

*Significant priorities made in terms of categories.

Table 2. Summary Table of Grand Means of Community, Teachers and Administrators by Category of Objective and Derived Correlations.

	Community	Teachers	Administrators
Tool-skill	5.60	4.68	4.30
Low-cognitive	4.54	3.40	4.51
High-cognitive	4.53	5.05	5.46
Affective-personal	5.69	6.08	5.49
Affective-interactive	4.64	5.79	5.24

Obtained correlations

Community vs. Teachers	0.393
Community vs. Administrators	-0.121
Teachers vs. Administrators	0.745

Table 3. Teacher Q-Sort and Observation Summary Sheet by Category of Objective.

	Tool-skill	Low-Cognitive	High-Cognitive	Affective-Personal	Affective-Interactive
Q-sort Means					
Teacher #1	4.20	3.75	4.65	5.90	6.50
2	4.75	2.35	4.45	6.55	6.90
3	4.45	4.05	6.40	6.00	4.10
4	5.35	3.70	5.45	5.05	5.45
5	4.65	3.15	4.30	6.90	6.00
Grand Means	4.68	3.40	5.05	6.08	5.79
Observations					
Teacher #1	12.0	25.5	10.5	0.5	0
2	15.0	2.5	4.0	11.0	5.0
3	8.5	4.5	17.5	16.0	17.0
4	19.5	8.5	27.0	0	4.0
5	10.5	0	14.0	17.0	6.0
Grand Means	65.5	41.0	73	44.5	32.0

Table 4. Correlation Between Teachers Perceived and Practiced Priorities Based Upon Category System and Percent of Reliability Per teacher.

	Correlation Between Perceived and Practiced Priorities	Reliability of Observation by Percent
Teacher #1	-0.924	86.5
2	0.361	87.2
3	0.622	78.0
4	0.292	90.2
5	0.629	93.8

CONCLUSIONS:

The following are some tentative conclusions that may be offered as a result of the findings:

A. Q-sort Findings

1. Of a total of fifteen respondents, twelve or 80% did, in fact, assign priorities that differentiated among the five categories. Of this total, all of the five teachers made this differentiation, three of the five administrators and four of the five community members.
2. Overall, there was agreement among groups that the most important category was "Affective-personal."
3. Overall, there was little agreement among groups in any of the other four categories. If a mean of 5.0 is used as a cutoff point, that is to say, equal to or greater than 5.0 signifies "importance" and less than 5.0 signifies "unimportance," a number of interpretations result. These, per category, include:

--Tool-skill - Community members found this category to be much more important as a group, 5.6, than did either teachers, 4.68, or administrators, 4.3.

--Low-cognitive - All three groups felt this category was "unimportant." However, administrators, 4.51, and community members, 4.54, differed as to the degree of "unimportance" as compared to teachers, 3.43.

--High-cognitive - Both teachers and administrators, 5.02 and 5.46, felt this category was "important." Community members did not, 4.53.

--Affective-interactive - Both teachers and administrators, 5.79 and 5.24, felt this category was "important." Community members did not, 4.64.

4. Although there were these apparent differences among the groups, it should be noted that within groups there were differences also. For example,

although the teachers, as a group, found the category of "High-cognitive" to be relatively important, 5.02, within the group of teachers only two of the five felt this way. As a group, community members found the category of "Tool-skill" to be important, 5.6, however, within the group only three of the five felt this way. finally, as a group, administrators found the category of "Affective-interactive" to be important, 5.24, however, within the group only two of the five felt this way.

5. In conclusion, with regard to the Q-sort findings, it can be said that of all three groups, the teachers differentiated the most among categories. Overall, the category of "Affective-personal" was most important; as a matter of fact, in all cases with the exception of one respondent, this category was designated as being "important."

These conclusions are reflected in the obtained correlations in Table 2 wherein teachers and administrators showed a high degree of agreement, .745, while neither group significantly agreed with the group of community members although teachers, .393. tended to more so than did administrators, -.121.

B. Q-sort Findings Compared to Observation Findings.

When teachers' stated priorities of instruction, as differentiated by the categories, were compared to observed priorities of instruction as a group no discernible relationship was found, Table 4. The mean of the correlations between stated and practiced is .196, which is not significantly different from zero. Again, however, there were great differences within the group which ranged from .629, high relationship to -.924, high opposite relationship. One consistency that was found was in the category of "Low-cognitive." All the teachers regarded this category as not "important" in the Q-sort while four of the five teachers seemed to practice it at least in their classrooms.

The categories that seemed most difficult to practice, based upon the observations, were both affective categories.

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Bureau of Educational Evaluation

PW:cs
Encl.

Table 1. Q-Sort Summary Sheet of Means by Category of Objective.

	Tool-skill	Low-Cognitive	High-Cognitive	Affective-Personal	Affective-Interactive
Community					
1*	4.65	4.40	5.10	5.65	5.20
2*	4.20	3.50	5.20	6.60	5.50
3	4.25	4.95	6.10	5.60	4.10
4*	4.60	3.85	3.95	5.95	6.65
5	4.50	5.20	5.45	5.35	4.50
Grand Means	4.44	4.38	5.16	5.83	5.19
Teachers					
1*	6.45	3.40	4.15	5.95	5.05
2*	4.45	4.55	5.45	6.15	4.40
3*	4.95	3.05	5.05	5.75	6.20
4*	5.00	3.15	4.95	6.15	5.75
5*	3.95	4.75	6.10	6.20	4.00
Grand Means	4.96	3.78	5.14	6.04	5.08
Administrators					
1*	3.50	5.20	6.60	5.30	4.40
2*	4.60	3.65	5.35	6.20	5.20
3*	3.20	6.05	5.75	5.75	4.25
4*	3.75	4.35	6.25	6.25	4.40
5	4.30	4.85	5.10	5.80	4.95
Grand Means	3.87	4.82	5.81	5.86	4.64

*Significant priorities made in terms of categories.

Table 2. Summary Table of Grand Means of Community, Teachers and Administrators by Category of Objective and Derived Correlations.

	Community	Teachers	Administrators
Tool-skill	4.44	4.96	3.87
Low-cognitive	4.38	3.78	4.82
High-cognitive	5.16	5.14	5.81
Affective-personal	5.83	6.04	5.86
Affective-interactive	5.19	5.08	4.64

Obtained correlations

Community vs. Teachers	.8658
Community vs. Administrators	.7498
Teachers vs. Administrators	.4583

Table 3. Teacher Q-Sort and Observation Summary Sheet by Category of Objective.

	Tool-skill	Low-Cognitive	High-Cognitive	Affective-Personal	Affective-Interactive
Q-sort Means					
Teacher #1	6.45	3.40	4.15	5.95	5.05
2	4.45	4.55	5.45	6.15	4.40
3	4.95	3.05	5.05	5.75	6.20
4	5.00	3.15	4.95	6.15	5.75
5	3.95	4.75	6.10	6.20	4.00
Grand Means	4.96	3.78	5.14	6.04	5.08
Observations					
Teacher #1	11.5	4.5	12.5	16.0	3.0
2	21.5	38.0	16.5	18.0	6.5
3	38.5	13.0	16.0	7.0	20.0
4	4.0	20.0	35.5	3.0	8.5
5	24.5	30.0	31.5	6.5	2.0
Grand Means	20.0	21.1	22.4	10.1	8.0

Table 4 Correlation Between Teachers Perceived and Practiced Priorities Based Upon Category System and Percent of Reliability Per Teacher.

	Correlation Between Perceived and Practiced Priorities	Reliability of Observation by Percent
Teacher #1	.5115	78.0
2	-.1327	91.1
3	.0482	90.6
4	-.4589	86.5
5	.1200	86.6

CONCLUSIONS:

The following are some tentative conclusions that may be offered as a result of the findings:

A. Q-sort Findings

1. Of the total of fifteen respondents, twelve or 80% did, in fact, assign priorities that differentiated among the five categories. Of this total, five of the five teachers made this differentiation, four of the five administrators and three of the five community members.
2. Overall, there was agreement among groups that the most important categories were "Affective-personal" and "High-cognitive", while the least important category was "Low-cognitive." This was especially so for the community members and teachers.

   The other two categories, "Tool-skill" and "Affective-interactive" found little agreement either among groups or within groups. For instance, if 5.0 is used as a cutoff point, that is to say equal to or greater than 5.0 signifies "importance" and less than 5.0 signifies "unimportance", we find that all the community members and all the administrators indicated that "Tool-skill" was "unimportant" while two of the five teachers found the category to be "important."

   The category of "Affective-interactive" resulted in an even more mixed picture. Three of the five community members felt it was "important", three of the five teachers felt it was "important", and only one of the five administrators felt it was "important." In fact, when the grand means per group are examined, one finds that both the community members and the teachers, as a group, found the category of "Affective-interactive" to be important while the administrators, as a group, did not.

3. The above findings lead to the reported correlations listed under Table 2 which can be interpreted as meaning that, although all three groups tend, somewhat, to agree in terms of their priorities as differentiated by the categories, there is less agreement between teachers and administrators than either group with community members. This finding reflects the differentials, per group, for the categories of "Low-cognitive" and "Affective-interactive." In each of these categories, only two of three groups tend to agree. This can be demonstrated as follows:

--community members and administrators feel "Low-cognitive" is relatively more important than do teachers.

--community members and teachers feel "Affective-interactive" is relatively more important than do administrators.

The fact that when two groups are paired in both cases against a third, one of those two in both cases is the group of community members. This explains the correlations wherein the group of community members tends to agree with both professional groups more than do the professional groups to each other.

B. Q-sort Findings Compared to Observation Findings.

1. When teachers' stated priorities of instruction, as differentiated by the categories, were compared to observed priorities of instructions as a group no discernible relationship was found (Table 4). The mean of correlations between stated and practices is .0176, which is not significantly different from zero. What seems to be occurring is that teachers were seemingly "Affective" plus "High-cognitive" in the Q-sort but "Cognitive" and "Tool-skill" in practice. In fact, 78% of the ob-

served behaviors were in these categories.

2. In summary, it can be said that although there was a modicum of agreement among all three groups in the Q-sort, the teachers, as a group, seem to have found it difficult to actualize their priorities in their instruction.

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--Table 2 - a statistical, Pearson Product Moment Correlation, analysis comparing the grand means per group over the five categories and the resultant significance level.
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Table 1. Q-Sort Summary Sheet of Means by Category of Objective.

	Tool-skill	Low-Cognitive	High-Cognitive	Affective-Personal	Affective-Interactive
Community					
1*	3.45	4.05	4.50	6.60	6.40
2*	3.70	4.25	4.80	5.80	6.45
3*	3.15	4.20	5.45	6.80	5.40
4*	5.35	5.85	5.40	4.05	4.35
5	4.45	5.10	4.80	6.15	4.50
Grand Means	4.02	4.69	4.99	5.88	5.42
Teachers					
1*	3.80	4.15	6.25	6.95	3.85
2*	3.60	4.30	5.70	6.15	5.25
3*	4.85	4.05	4.15	5.70	6.25
4*	4.35	4.00	6.00	5.70	4.95
5*	4.85	3.05	5.65	6.15	5.30
Grand Means	4.29	3.91	5.55	6.13	5.12
Administrators					
1*	4.15	4.10	5.30	6.15	5.30
2*	4.75	5.70	6.05	5.30	3.20
3*	4.65	3.80	4.60	6.70	5.25
4*	3.70	4.85	6.00	6.25	4.20
5*	3.60	5.50	6.65	5.25	4.00
Grand Means	4.17	4.79	5.72	5.93	4.39

*Significant priorities in terms of categories.

Table 2. Summary Table of Grand Means of Community, Teachers and Administrators by Category of Objective and Derived Correlations.

	Community	Teachers	Administrators
Tool-skill	4.02	4.29	4.17
Low-Cognitive	4.69	3.91	4.79
High-Cognitive	4.99	5.55	5.72
Affective-Personal	5.88	6.13	5.93
Affective-Interactive	5.42	5.12	4.39

* Obtained Correlations

Community vs. Teachers	.8071
Community vs. Administrators	.6413
Teachers vs. Administrators	.7665

Table 3. Teacher Q-sort and Observation Summary Sheet by Category of Objective.

	Tool-skill	Low Cognitive	High-Cognitive	Affective-Personal	Affective-Interactive
Q-sort Means					
Teacher #1	3.80	4.15	6.25	6.95	3.85
2	3.60	4.30	5.70	6.15	5.25
3	4.85	4.05	4.15	5.70	6.25
4	4.35	4.00	6.00	5.70	4.95
5	4.85	3.05	5.65	6.15	5.30
Grand Means	4.29	3.91	5.55	6.13	5.12
Observations					
Teacher #1	24.0	15.0	11.0	1.0	0
2	25.0	12.0	12.0	9.0	0
3	17.0	2.0	8.0	18.0	13.0
4	18.0	3.0	5.0	14.0	17.0
5	24.0	4.0	16.0	17.0	9.0
Grand Means	21.6	7.2	10.4	11.8	7.8

Table 4. Correlation Between Teachers' Perceived and Practiced Priorities Based Upon Category System Per Teacher.

	Correlation Between Perceived and Practiced Priorities
Teacher #1	-.4329
2	-.6613
3	.6873
4	-.0316
5	.5789

CONCLUSIONS:

The following are some tentative conclusions that may be offered as a result of the findings:

1. Of the total of fifteen respondents, fourteen or 93% did, in fact, assign priorities that differentiated among the five categories. Evidently, the sample had little difficulty in making these differentiations
2. The reported correlations listed under "Table 2" can be interpreted as meaning that when all three groups are compared, taking a pair at a time, the groups all tend to agree as to the rankings of priorities of educational objectives, given the five categories. However, the greatest agreement is to be found between community members and teachers. This can best be explained as a result of the higher comparative weighting given by these two groups to the category of "Affective-interactive."

   As a total group, the category of "Affective-personal was rated highest. In fact, each specific group rated this category as highest as did three of the five individual community members, three of the five individual administrators.
3. When one examines what the teachers practice, as measured by the observations, compared to what the teachers state, as measured by the Q-sort, there is no discernible pattern. The mean of correlations between stated and practiced is found to be .03 which is not significantly different from zero.

4. In summary, it can be said that the perceived priorities of the community members, teachers and administrators tend to agree. However, the teachers, as a group, seem to have found it difficult to actualize their priorities in their instruction.

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	Tool-skill	Low-Cognitive	High-Cognitive	Affective-Personal	Affective-Interactive
Community					
1*	4.95	4.80	3.75	5.75	5.75
2*	5.40	3.85	3.95	5.85	5.95
3*	4.85	4.30	3.80	5.85	6.20
4*	4.15	5.15	5.85	5.70	4.15
5*	4.20	4.05	4.95	6.55	5.25
Grand Means	4.71	4.43	4.46	5.94	5.46
Teachers					
1*	5.25	3.55	5.15	6.25	4.80
2*	4.35	4.45	5.90	5.55	4.75
3*	5.80	4.00	5.50	5.35	4.35
4	5.20	5.20	5.30	5.05	4.25
5*	5.70	3.60	4.75	5.30	5.65
Grand Means	5.26	4.16	5.32	5.50	4.76
Administrators					
1	5.40	4.65	5.25	5.60	4.10
2	5.05	4.75	5.60	5.30	4.30
3*	3.10	4.40	6.30	6.35	4.85
4	3.75	5.25	5.55	5.30	5.15
5*	4.55	3.45	5.90	6.25	4.85
Grand Means	4.37	4.50	5.72	5.76	4.65

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Table 2. Summary Table of Grand Means of Community, Teachers and Administrators by Category of Objective and Derived Correlations.

	Community	Teachers	Administrators
Tool-skill	4.71	5.26	4.37
Low-cognitive	4.43	4.16	4.50
High-cognitive	4.46	5.32	5.72
Affective-personal	5.94	5.50	5.76
Affective-interactive	5.46	4.76	4.65

Obtained Correlations

Community vs. Teachers	.405
Community vs. Administrators	.345
Teachers vs. Administrators	.640

Table 3. Teacher Q-Sort and Observation Summary Sheet by Category of Objective.

	Tool-skill	Low-Cognitive	High-Cognitive	Affective-Personal	Affective-Interactive
Q-sort Means					
Teacher #1	5.25	3.55	5.15	6.25	4.80
2	4.35	4.45	5.90	5.55	4.75
3	5.80	4.00	5.50	5.35	4.35
4	5.20	5.20	5.30	5.05	4.25
5	5.70	3.60	4.75	5.30	5.65
Grand Means	5.26	4.16	5.32	5.50	4.76
Observations					
Teacher #1	23.5	7.0	10.5	13.5	3.5
2*	10.0	16.5	14.5	9.0	9.0
3	12.0	9.5	9.0	3.5	0
4*	3.0	29.5	6.0	0	7.0
5	17.5	19.5	16.0	4.0	8.0
Grand Means	13.2	16.4	11.2	6.0	5.5

*Only one observer's results were used in the first of the two observation periods.

Table 4. Correlation Between Teachers Perceived and Practiced Priorities Based Upon Category System and Percent of Reliability Per Teacher.

	Correlation Between Perceived and Practiced Priorities	Reliability of Observation by Percent
Teacher #1	.453	76.9
2	.018	68.6*
3	.380	70.0
4	.152	88.0*
5	-.546	77.2

*Based upon the results of the second of the two observation periods.

CONCLUSIONS

The following are some tentative conclusions that may be offered as a result of the findings:

A. Q-sort Findings

1. Of the total of fifteen respondents, ten or 67% did, in fact, assign priorities that differentiated among the five categories.
2. The community members, as a group, assigned priorities that differentiated better among the five categories than either the teachers or administrators.
3. Overall, there was agreement among groups that the least important category was "Low-cognitive", while the category of "Affective-personal was most important.
4. As a group, the community certainly gave highest priority to both Affective categories, while on the other hand, both the administrators and teachers were of the opinion that the categories of "Affective-personal" and "High-cognitive" were of highest priority. The category of "Tool-skill" was found to be important, comparatively speaking, only for the teachers as a group.

These findings are reflected in the obtained correlations among the groups. Although there is some indication of agreement between each pair of groups when all are compared, the greatest agreement is found between the teachers and the administrators with neither group showing any particular amount of agreement with the community. This finding is most interesting when one considers that of all three groups the community was the most able to differentiate among the categories.

B. Q-sort Findings Compared to Observation Findings

1. Table 4 indicates that those priorities that the teachers differentiated among the five categories were not reflected in the classroom in any discernible pattern. Based upon the observations, as a group the teachers seemed to prompt many more behaviors on the part of the children that were within the categories of "Tool-skill" and "Low-cognitive" while as a group their Q-sort results indicated the categories of "Affective-personal" and "High-cognitive" as being most important.

2. In summary, it can be said that the teachers seem to have found it difficult to actualize their perceived priorities in their instruction.

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I look forward to meeting with you again. If you have any questions, please do not hesitate to call.

Cordially yours

Pierre Woog
Administrative and Research Associate
Bureau of Educational Evaluation

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Table 1. Q-Sort Summary Sheet of Means by Category of Objective.

	Tool-skill	Low Cognitive	High-Cognitive	Affective-Personal	Affective Interactive
Community					
1*	5.45	4.95	5.95	4.70	3.95
2*	5.70	4.55	5.65	5.80	3.30
3*	5.55	4.60	4.95	5.60	4.30
4*	5.20	5.00	3.75	5.25	5.80
5*	5.65	4.65	3.15	5.65	5.90
Grand Means	5.51	4.75	5.64	5.40	4.65
Teachers					
1	5.65	4.05	5.25	5.15	4.90
2*	4.45	3.35	4.70	6.35	6.15
3	5.00	4.05	5.70	4.90	5.35
4*	4.45	3.85	5.70	5.90	5.10
5*	4.15	4.25	5.10	6.00	5.50
Grand Means	4.74	3.91	5.29	5.66	5.40
Administrators					
1*	5.45	3.35	4.45	6.25	5.50
2*	3.60	5.40	6.00	5.75	4.25
3*	3.95	4.85	6.75	5.30	4.15
4	5.05	4.45	5.50	5.45	4.55
5*	4.30	4.05	5.95	5.75	4.95
Grand Means	4.47	4.42	5.73	5.70	4.08

*Significant priorities in terms of categories.

Table 2. Summary Table of Grand Means of Community, Teachers and Administrators by Category of Objective and Derived Correlations.

	Community	Teachers	Administrators
Tool-skill	5.51	4.74	4.47
Low-cognitive	4.75	3.91	4.42
High-cognitive	5.64	5.29	5.73
Affective-personal	5.40	5.66	5.70
Affective-interactive	4.65	5.40	4.08

(Obtained correlations

Community vs. Teachers	.354
Community vs. Administrators	.745
Teachers vs. Administrators	.498

Table 3. Teacher Q-Sort and observation Summary Sheet by Category of Objective.

	Tool-Skill	Low Cognitive	High Cognitive	Affective Personal	Affective Interactive
Q-sort Means					
Teacher#1	5.65	4.05	5.25	5.15	4.90
2	4.45	3.35	4.70	6.35	6.15
3	5.00	4.05	5.70	4.90	5.35
4	4.45	3.85	5.70	5.90	5.10
5	4.15	4.25	5.10	6.00	5.50
Grand Means	4.74	3.91	5.29	5.66	5.40
Observations- average # frequencies over two observations.					
Teacher #1	26.5	16.5	16.0	3.5	1.5
2	16.5	22.0	18.0	10.5	4.5
3	22.5	7.5	7.5	3.5	0.0
4	18.0	6.0	15.5	10.5	4.0
5	5.0	13.0	39.5	15.0	0.0
Grand Means	17.7	13.0	19.3	8.6	2.0

Table 4. Correlation Between Teachers Perceived and practiced Priorities Based Upon Category System and Percent of Reliability Per Teacher.

	Correlation Between Perceived and Practiced Priorities	Reliability of Observation by Percent
Teacher #1	.241	88
2	-.915	85
3	-.105	90
4	.190	90
5	.102	85

CONCLUSIONS

The following are some tentative conclusions that may be offered as a result of the findings:

A. Q-sort findings

1. Of the total of fifteen respondents, eleven or 73% did, in fact, assign priorities that differentiated among the five categories.

2. Overall, there was agreement among groups that the least important category was "Low-cognitive", while both categories of "High-cognitive" and "Affective-personal" were agreed upon as being important. The other two categories, "Tool-skill" and "Affective-interactive" found little agreement among groups. For instance, if 5.0 is used as a cut-off point, that is to say over 5.0 signifies "importance" and less than 5.0 signifies unimportance", we find that all the community respondents indicated that "Tool-skill" was "important" , while more than half of the teachers and administrators felt that "Tool-skill" was "unimportant". In the instance of "Affective-interactive", the same mixed pattern emerges with a shift of groups. As a group,teachers felt this was an "important" category, grand means 5.4, while both the community, grand mean 4.65, and the administrators, grand mean 4.08, felt this category was "unimportant".

3. The above findings lead to the reported correlations listed under "Table 2" which can be interpreted as meaning that, although all three groups tend to agree in terms of their priorities as differentiated by the categories, there is higher agreement between

community members and administrators than either group with the teachers.

B. Q-sort Findings Compared to Observation Findings.

1. Table 4 indicates that those priorities that the teachers differentiated among the five categories were not reflected in the classroom in any discernible pattern. Overall, the teachers' practice seems to range from either being unrelated to their perceived priorities to being somewhat in the opposite direction.

2. If one compares the teachers' Q-sort results to that of the community, the resultant correlation is .354 (see Table 2) which tends to show minimal agreement. However, if one compares the teachers' observed behavior, given the five categories, to that of the community Q-results, the resultant correlation is .727.

If one follows the same procedure between the teachers' Q-results, the correlation is .498 (see Table 2) while the correlation between the teachers' observed behavior and the administrators' Q-result is .3939.

3. In summary, it can be said that on the basis of perceived priorities as differentiated by the categories, there is some lack of agreement between the teachers and the other two groups. However, when one examines not what the teachers perceive but practice, there is a high degree of agreement between the teachers and the community but not so between the teachers and the administrators.

The most constructive path to agreement among all groups would seem to be some dialogue relating to the "Affective-

interactive" category which the teachers perceive as important but do not seem to implement. At the same time, a clarification as to the importance of "Tool-skill" category is necessary. Both teachers and administrators do not rank this category as a high priority in the Q-sort, while the community does. However, in practice, the teachers do stress the category.

Obviously, any interpretation from these findings tends to become rather complicated. It would seem that a thorough discussion realted to the findings could be most beneficial.

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Department of Educational Psychology

Thank you for the cooperation in helping us conduct part of our study. Everyone in the district was most hospitable.

I am enclosing a report of the findings. These include:

--a list of the items that were included in the Q-sort entitled "6th Grade Non-Content Objectives."
--a description of the categories of objectives.
--Table 1 - a summary table showing the obtained means for each parent, teacher, and administrator over each category of objectives and the grand means for each group. Included also, will be a designation, per respondent, as to whether there was a significant difference at .05 among means. That is to say, were the assigned priorities differenciated among the five categories?
--Table 2 - a statistical, Pearson Product Moment Correlation, analysis comparing the grand means per group over the five categories and the resultant significance level.
--Table 3 - a summary table showing the obtained mean per teacher for categories in the Q-sort and frequency of observations per category.
--Table 4 - a statistical, Pearson Product Moment Correlation, analysis comparing each teacher's mean per category in the Q-sort to each teacher's observed frequency of categories within the classroom and the resultant significance level. A reliability index for each teacher between observers is also reported. This reliability index is given in terms of percent

of agreement between the two observers.
--a summary of the statistical analysis and conclusions thereof.

Once you have had a chance to examine these materials, if the district wishes, I would be happy to meet with all those who have participated in order to elaborate upon the findings. Also, if any participant wishes to know specifically his findings, I will be more than willing to discuss these with him privately.

I look forward to meeting with you again. If you have any questions, please do not hesitate to call.

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Table 1. Q-Sort Summary Sheet of Means by Category of Objective.

	Tool-skill	Low-Cognitive	High Cognitive	Affective Personal	Affective Interactive
Community					
1*	5.65	5.35	5.55	5.10	3.35
2*	4.85	5.70	5.80	4.70	3.95
3	5.35	4.45	4.45	4.95	5.80
4	4.60	5.25	5.00	5.35	4.80
5*	5.70	4.35	4.30	6.00	4.65
Grand Means	5.23	5.02	5.02	5.22	4.51
Teachers					
1*	3.85	4.40	6.40	6.30	4.05
2*	4.55	3.60	5.30	6.80	4.75
3*	2.45	4.10	5.90	6.35	5.70
4*	4.45	4.25	5.30	6.35	5.22
5*	4.10	4.60	4.50	6.45	5.35
Grand Means	3.88	4.19	5.48	6.45	5.01
Administrators					
1*	4.25	4.65	6.40	5.95	3.75
2*	5.10	4.05	4.95	5.85	5.05
3*	4.55	4.65	6.45	5.05	4.30
4*	5.15	4.75	6.25	5.35	3.50
5*	3.50	3.70	6.95	5.70	5.15
Grand Means	4.51	4.36	6.20	5.58	4.35

* Significant priorities in terms of categories made.

Table 2. Summary Table of Grand Means of Community, Teachers and Administrators by Category of Objective and Derived Correlations.

	Community	Teachers	Administrators
Tool-skill	5.23	3.88	4.51
Low-Cognitive	5.02	4.19	4.36
High-cognitive	5.02	5.48	6.20
Affective-personal	5.22	6.45	5.58
Affective-interactive	4.51	5.01	4.35

Obtained Correlations

Community vs. Teachers	.041
Community vs. Administrators	.349
Leachers vs. Administrators	.713

Table 3. Teacher Q-sort and Observation Summary Sheet by Category of Objective.

	Tool-skill	Low Cognitive	High Cognitive	Affective Personal	Affective Interactive
Q-sort Means					
Teacher #1	3.85	4.40	6.40	6.30	4.05
2	4.55	3.60	5.30	6.80	4.75
3	2.45	4.10	5.90	6.35	5.70
4	4.45	4.25	5.30	6.35	5.22
5	4.10	4.60	4.50	6.45	5.35
Grand Means	3.88	4.19	5.48	6.45	5.01
Observations					
Teacher #1	70.0	15.5	4.0	10.0	12.0
2	17.0	2.0	5.5	21.5	10.5
3	41.0	23.5	13.5	15.0	17.5
4	5.0	16.0	21.0	14.0	34.5
5	10.0	53.5	43.0	5.0	7.5
Grand Means	28.6	22.1	17.4	13.1	16.4

Table 4. Correlation Between Teachers Perceived and Practiced Priorities Based Upon Category System and Percent Reliability Per Teacher.

	Correlation Between Perceived and Practiced Priorities	Reliability of Observation by Percent
Teacher #1	-.622	82
2	.721	91
3	-.967	82
4	.214	82
5	-.499	84

CONCLUSIONS

The following are some tentative conclusions that may be offered as a result of the findings:

1. Of the total of fifteen respondents, twelve or 80% did, in fact, assign priorities that differentiated among the five categories. If we assume that as a result of chance, one-half or 7.5 of the group would have differentiated, given the five categories, then our obtained number, or 12. , is significant. This is to say that the total group of fifteen was able to assign priorities in the Q-sort as differentiated among the theoretical categories. Although, as a group, these priorities were made, it is interesting to note per group that all the teachers did, four of the five administrators did, and three of the five community members did. This leads to the second conclusion.

2. Of the three groups, the community seemed to have the most difficulty assigning priorities that differentiated among the five categories. This fact is reflected in the variability within each category and the absence of a dominant priority for the group. On the other hand, both teachers and administrators made more definite choices wherein the "High-cognitive" category and the "Affective-personal" category were given top priority by the groups, although the order was reversed for each group. In addition, it is interesting to note that the category of "Tool-skill" was ranked lowest for both administrators and teachers while it was ranked as highest, relatively for the community.

3. Based upon the above observation, it comes as no surprise that teachers and administrators tend to agree overall as to the priorities of instruction as assigned to the five categories while neither group agrees significantly with the members of the community.

4. When teachers' stated priorities of instruction were compared to observed priorities of instruction, no relationship was found. The mean of correlations between stated and practices is found to be -.21, which is not significantly different from zero.

5. In summary, it can be said that the perceived priorities of the professional staff seem to agree. However, the teachers seem to have found it difficult to actualize their priorities in their instruction.